The agronomic sense in going green 66 There's a massive know

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Innovation Green schemes

Agrii and Hutchinsons have both launched major new initiatives designed to help growers address the challenges and opportunities coming through in new environmental policy initiatives. *CPM* find out what's on offer.

By Tom Allen-Stevens

The role of the serviced agronomist is changing. Gone are the days they simply walked the crops and wrote a prescription for a list of chemicals that should be applied.

Instead, they're increasingly involved in wider on-farm discussions. There are signs many growers value their input on rotations, cropping, varieties, nutrition and cultivations, with conversations moving from margin over input to whole-farm and long-term profit.

Now the relationship may be making another step change. Agrii has launched Green Horizons, its new wide-reaching sustainability initiative. Meanwhile Hutchinsons is rolling out a brand-new Services Division — Environmental Services was launched in the New Year, with other similar initiatives to follow.

Put simply, Green Horizons is Agrii's commitment to sustainable food production, explains the company's head of technical Clare Bend. "We believe it's eminently achievable to meet the twin expectations of safe, affordable food production and environmental enhancement — the priorities can and should be complementary. But there's a massive knowledge gap that exists between where UK Agriculture is now and where it aspires to be, and it needs a delivery mechanism to address this."

So Green Horizons is Agrii's five-point plan that aims to achieve this. "It's a statement with a lot of detail behind it we're looking to join the dots and fill in the gaps," Clare continues. "As with conventional crop agronomy, Agrii has a duty to investigate some of the big questions and help our customers adapt to the evolving food production landscape."

Detailed ambitions

The five-point plan sets out the overall aims and there some detailed ambitions that lie behind these to address the challenges within each area (see panel on p81). "It's a springboard to develop our sustainability strategy for the next 5-10 years, and it's evolving, including aspects such as our on-going commitment to IPM," says Clare.

"But what we're not doing is undermining the safe use of conventional chemistry — we believe we can blend innovations including genetic technologies with chemistry."

Innovation plays a key role within the first point of increasing farm productivity. "We're keeping a weather eye on new technologies and sense a new approach from Government on gene-editing. RNA interference is a technology with real potential but CRD doesn't yet know how to regulate it. We want to work with them to have a system that's proven and trusted to be safe."

Clare notes Agrii's Variety Sustainability

Ratings provide growers with one of a number of integrated whole farm solutions. "We've seen sales with a VSR in the best category increase from 43% to 59%," she says.

Collaborations with the UK Centre for Ecology and Hydrology and Harper Adams are improving understanding of soil health, while Agrii plans to launch a new independently validated measure later this year.

Accreditation and training will also help enhance the environment, says Clare with training and a new qualification under development for growers and agronomists. "Manufacturers are rising to the challenge, too, with our Field of the Future project, putting bio-solutions through their paces."

A series of Insight reports will share the Green Horizons findings more widely while a farmer network will crowd-source new ideas. "We're very keen to learn along with growers, especially when it comes to how regenerative agriculture practices can be introduced on farm while keeping an eye on



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Green schemes



Source: Agrii, 2021.

profitability," notes Clare. Work is also underway on evaluating carbon calculators.

So do these laudable aims tie in with what the rest of industry is doing? "We could sit and wait to see what everyone else does, but our preferred approach is to take the initiative," she says.

"We already have a dialogue with manufacturers and feel this has spurred them on to bring solutions to the UK we can share across the industry. This is an evolving process of needling and getting things moving. We know we're in a transition and don't know exactly how things will turn out, but we want to ensure growers are as prepared as they can be."

Greener future

Hutchinsons has launched Environmental Services, designed to help growers fully understand the implications of changing support payments and how best to optimise income. Working with existing stewardship schemes, newly appointed specialists will help growers prepare for the roll out of The Environmental Land Management (ELM) Scheme in 2024.

"Growers are understandably concerned about how they will be able to maintain profitability as Basic Payments decline and equally how they'll be able to make the most of the new support measures, such as the ELM Scheme," notes head of Hutchinsons'



Matt Ward says the new services will help growers make the most of the new support measures, such as the ELM Scheme.

new services division Matt Ward.

"Environmental Services will help them manage these challenges, while complementing our core advice and product supply services."

Helix, the company's innovation initiative that links technology, knowledge and advice to sustainable farming, will support and test these services on a farm scale, he adds. "We want to demonstrate clearly how these services work in action and specifically how they'll contribute towards the financial and environmental sustainability of farming businesses."

Leading the new service are environmental specialists Hannah Joy, who has already begun working with agronomists on Countryside Stewardship (CS) schemes, while Matt England has experience in putting together and managing ►

Midloe finds the middle ground for new ideas

Can you grow a high-yielding wheat with reduced conventional inputs, supported by green technologies and following IPM principles? That's the aim of the Green Horizons projects taking place at Midloe Grange Farm in Cambs.

"I play the role of grumpy farmer," explains partner in the family business David Felce, who also works for Agrii. The 100ha arable farm is one of Agrii's Net Zero iFarms and is where some of the company's concepts and research are put into practice.

"Midloe is the middle ground — as new ideas come through and the farming landscape evolves, I want to know not just whether they're plausible but how they sit within a whole farm system and how they're managed," he notes.

A traditional cropping rotation moves around the mainly Hanslope series chalky boulder clay soils the farm sits on. It's been part of various environmental schemes since 1992 and a LEAF Demonstration Farm since 2000. 19% of the farm is currently devoted to habitats and wildlife while there's a 6ha county wildlife site to look after.

Various trials are underway on the farm looking at in-crop solutions, such as varieties, cover crops, nutrition practices and bio-solutions. These feather into IPM practices and investigations taking place at the field edge. "We're looking at whether we can reduce the pressure on a bean crop from pea and bean weevil and bruchid beetle through growing a crop of lucerne around it, for instance."

David's particularly keen for soil management to come under close scrutiny. "Our soils are generally not immediately receptive to cover crops, but combined with appropriate cultivation to improve establishment, can help overcome their weaknesses. But it's not always as easy as it sounds — we've struggled to make them work at nearby Stow Longa on heavier soil.

"With drainage, it's important to remove water, but where does it go and is it clear? We're monitoring two points where the water leaves the farm and considering whether we should have off-line settlement ponds on the farm in areas of



David Felce is particularly keen for soil management to come under close scrutiny.

poor productivity to improve water quality." There's also an investigation to evaluate methods of improving soil organic matter the effects of cultivation method, rotation and choice and establishment of cover crop come under scrutiny.

Green schemes

► agri-environmental schemes, as well as wider conservation work.

"We're offering growers professional advice and support regarding Countryside Stewardship, Environmental Stewardship and any wider environmental issues," Hannah explains. "This might include dealing with the RPA, inspection appeals, woodland creation and management."

Hutchinsons agronomists get specialist training and support to help them understand the importance of designing and implementing CS schemes for growers that tie in both the best interests of the farm and also the wider farmed environment. "We also offer assistance in the day-to-day running of schemes, such as advice and guidance in setting up record keeping, mapping and regular checks on scheme options, with as much or as little involvement as is required and requested by the grower," adds Hannah.

ELM Scheme

A key part will be to prepare for the ELM Scheme, set to roll out in 2024. This will consist of three elements ranging from the Sustainable Farming Incentive, designed for all farmers, through to bespoke agreements on land use change. "We're expecting more information on the scheme later this year But we do know that anyone who entered into a CS scheme which doesn't end until after the roll-out of ELMS can, without penalty, break their current agreement and transfer into ELMS," notes Hannah.

Hutchinsons is also developing a range of stewardship seed mixes. The "practical and agronomically sound" mixtures are designed for ease of establishment and subsequent management and will build on the existing cover crop product range. New carbon and soil services are due to be introduced later this year. ■

Window opens to explore stewardship

Arable farmers are being urged to apply now for Countryside Stewardship (CS) funding to prepare for the transition to the ELM Scheme, due to be introduced in 2024.

Those managing holdings where CS agreements are coming to an end, or who want to get ahead of the curve, can spend the next 2-3 years exploring what options within the ELM Scheme may work best, says Hutchinsons' Environmental Services specialist Matt England. "If you're not already in an environmental scheme, now's the time to consider if you should be."

The application window for CS agreements due to start in 2022 have just opened, he points out. These have to be requested by 31 May, with an application for Mid-Tier schemes submitted by 31 July. Successful applicants get guaranteed funding for the full five-year duration of a scheme, or can switch to ELM without penalty if that proves beneficial.

"The experience of managing options and running an environmental scheme on your farm that is providing both 'public good' and 'natural capital', is the best preparation you can do for the ELM Scheme," he advises.

"The indication is that they will not be moving too far away from existing options when it comes to the new schemes, so many of those currently available will continue in the ELM Scheme. What's more, we understand for 2021 applications onwards some changes are being made to simplify the administration process and to make the inspection process fairer."

So which of the mesmerising list of CS options should you go for? Matt notes that every farm is different and each will have its own priorities. "Findings from the recent Tests and Trials have been published, however. These demonstrate how much payments could increase under the new scheme. Many of these are options, suitable for most arable farmers, that could roll straight from CS into ELM." (see table right).

If planting a new seeds mix, such as perennial

grass and wildflower species for a multi-annual option, Matt advises growers to work with their agronomist to assess which mixes are most successful on their farm.

"If the RPA chooses to bring in a payment by results system, it will be important to be able to grow good environmental mixes to achieve the highest payments," he notes.

"The ELM Scheme is likely to reward farms that are providing the most biodiversity. So you might want to explore some of the options already available and start building habitats straight away.

"For example, planting wildflower margins (currently \pounds 539/ha) is a great way to take marginal areas out of production and increase biodiversity, plus it will give you a long-term option that you can roll straight into an ELM Scheme."

Options for grass leys, such as a two-year legume fallow (currently £522/ha), or a legume and herb-rich sward (currently £309/ha), represent good opportunities to try something new in the rotation, he continues.

"There's even an option for overwintered cover



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crops (currently £114/ha). All of these options will help support your move towards a more regenerative agriculture approach, which will no doubt be encouraged in any new schemes."

Matt also suggests making use of the capital grants now available. "Some of these are very generous, such as hedge planting, gapping, laying and coppicing. This presents an opportunity to improve the environmental features on your farm and encourage more wildlife to your field boundaries."

Current and proposed environmental payments		
Environmental Option Sow a quick establishing single species cover crop after harvest (winter cover crop).	ELM (suggested rate) £150-220/ha	Countryside Stewardship rate £114/ha
Establish a zero-input grass buffer adjacent to a ditch/water course (12-24m).	£500-£700/ha	£512/ha
Zero application rates in waterside fields.	£250/ha	£131/ha
Sow multi-species diverse grass leys; to include mix of 5 grasses and 5 forbs, including legumes and some deep-rooted species.	£500-650/ha	£309/ha
Arable winter bird seed mix field margin (4-6m) or as a whole field break-crop rotation.	£840/ha	£640/ha
Source: Defra ELM Tests and Trials Evidence Report, Sept 2020.		